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**Wisconsin Architect** is the official publication of the Wisconsin Chapter of the American Institute of Architects, published by the Wisconsin Architect, Inc.

ELLO BRINK, Executive Editor

David Radbil, Advertising Manager

John Reiss, Art Director

Subscription Rate: \$5 per year. Individual copy 50c.

Address all matters pertaining to Editorial or Advertising

85 North Jefferson Street

Milwaukee, Wisconsin 53202

Phone 272-4668

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Views expressed in articles appearing in Wisconsin Architect do not necessarily represent the views of the Wisconsin Chapter, AIA, unless so stated. Wisconsin Architect and its publishers disclaim any and all liability for statements made by authors in contributing articles.

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## notes of the month

### Notes From the Department of Industry, Labor and Human Relations

*BY: Charles Hagberg, Administrator  
Industrial Safety & Buildings Division*

One of the earlier "Notes" columns covered exit requirements in general. Today I will discuss some of the common questions asked about exits from apartment buildings.

Ind 57.07 thru 57.10 and 51.15 and 51.16 are the sections of the code that specify exit requirements from apartment buildings. I won't quote the language of the sections, but the designers among our readers may want to use them as reference. Typical questions we are often asked are like these:

**Q.** What is the allowable distance to an exit in an apartment building?

**A.** Ind 57.07 specifies that two separate exits must be available from the door to each apartment and that the nearest one must be 50 feet or less from the apartment door unless the building is fire resistive, in which case the distance may be increased to 75 feet. A fire resistive building may also have 1200 square feet of building area beyond an exit. Very small apartment buildings may, under certain conditions, have only one stairway — see Ind 57.07 (4).

**Q.** Must both exits from upper floors be interior stairways?

**A.** No. Ind 57.07 states that one-half of the exit capacity should be stairway. The other half may be horizontal exits or fire escapes.

**Q.** Are wood platforms allowable as a fire escape?

**A.** Ind 51.20 specifies that a Class "A" fire escape may terminate in a platform not more than 10 feet off the ground. In the past we have found many two-story apartment buildings with fire escapes terminating with wooden jump-off platforms. The code, however, clearly states that material other than wrought iron, soft steel or medium steel, may not be used for a fire escape, except for weights, separators and ornaments.

(Continued on page 31)



# president's report



President  
Lawrence E. Bray

*The following outline of the scope and meaning of the Wisconsin Chapter, A.I.A.'s tasks for 1968 was presented by President Lawrence E. Bray at the first regular monthly meeting of the Executive Board of the Chapter on January 12, 1968. It is here reproduced as a communication to the entire membership with the purpose of keeping the membership informed as to the activities of the Wisconsin Chapter A.I.A. in all areas of interest to the profession, restating the ultimate goal of making the profession of ever-increasing service to society. Ed.*

I am approaching this new year as president of the Wisconsin Chapter, A.I.A., with a great deal of anxiety, hope and confidence that our organization shall continue to make strides in behalf of "our" profession of architecture. With the assistance of this board and the cooperation of our membership, I feel certain that we can move towards that ideal goal of the "complete architect." A critic of the A.I.A. once asked, "Is the A.I.A. alive to the new ideals or is it more interested in architects than in architecture?" That was a statement by Frank Lloyd Wright shortly after the turn of the century. Yes, Mr. Wright, I think we are, and I think we have proved ourselves ready to move toward those ideals as a group rather than as isolated individuals.

In approaching our local scene and goals for Wisconsin in 1968, I hope we can be as successful as we were under my predecessor, John Jacoby, in attaining his listed objectives in the year past. I have a simple five points I wish to make:

## (1) A.I.A. Organization:

### (a) Membership

I feel we have fairly well saturated the principles of architectural firms that are desirous of belonging in our ranks, but I think we have vastly ignored the young associate members of our staffs as well as the nonprofessional draftsmen. Their joining and interest in A.I.A. can reward us doubly in our organization as well as their renewed interest in their work at our offices.

### (b) Fritz von Grossman for Secretary of Institute.

Fritz has put his hat in the ring and I am sure he has an excellent chance of attaining that goal. Our

chapter must get behind him and give him all the support he needs.

### (c) Wisconsin A.I.A. Office

We have discussed, argued and ignored this question for years. I believe this is an issue we must give direction to so that in the future we can move into a more satisfactory situation than our present quarters. I am not only referring to physical space location but also to establishing our philosophy on where this should be, what type of space it should be (historical, associated with industry, etc.), and what should be its total function to the membership.

### (d) Finances

This is a problem in any service type of organization, and we must continue to review our financial setup in search of areas of new income along with perhaps additional services to the membership.

## (2) Committee Work

Increased committee work has been one of the greatest improvements in this organization since its founding. The establishment of ad hoc committees for a given task has been particularly significant and one I certainly plan to continue.

Present Active Committees, such as:

### Fees —

We look for this committee to review the case study and come up with a new fee book. This is an area where the P/R Committee is also going to need to coordinate its publication with a favorable report to the public.

### Schools —

We are looking forward to a very fine exhibit by this committee at the January school board convention. I also feel the school-architect type of regional meetings should be developed similar to some that have been held in the state.

### Professional Practice —

This is the committee assigned the task of helping establish long range goals for the A.I.A. I believe this committee should expand its ranks to include the entire membership for stimulating discussions and ideas.



the total cooperation demanded in a venture such as "computers" stimulates the potential of our entire profession.

#### Convention —

We are looking forward to a fine 1968 convention and will need to begin planning immediately for 1969. The yearly convention represents the chapter's closest contact with many of our members.

#### Workshop —

Certainly a continuation of this popular annual meeting. There are many other committees that will be active in 1969 including the possibility of new ad hoc committees as the needs arise.

#### 3) Government Relations:

With the success of Bill 12A, I believe we should approach new challenges in these areas with the same dedication.

#### Legislation —

This committee, after recent successes, has a few lions in the fire and will need to keep alert to future tasks. I look forward to more positive actions to help the architect in performance of his service.

#### Engineers —

This group has worked for over six months with the Bureau of Engineering, and I look for progress in contracts early this year. I am certain other avenues of investigation, such as fees, architect selection and others, will open up to keep them going in '68.

#### Code Committee —

Very active in many areas and results should continue all year. They need our support at hearings and in written opinions on their actions.

#### Review Committee —

This is a new committee just organized that I look to for considerable help to the profession and the public. Their purposes shall be:

Coordination with the Industrial Commission in reviewing poor practice techniques of fellow A.I.A. practitioners.

Coordination with the Registration Board in reviewing minor areas of malpractice with practitioners prior to board action.

Reviewing of minor complaints over fees, poor practice techniques and many others that come up between fellow architects, architects and their clients and others.

Although their function will only be advisory, they can serve as a valuable tool in improving the architect's service as well as his image to the public.

I look forward to the day, certainly somewhat in the future, that constructive design criticism would be available through this group.

#### (4) Education

Our greatest strides ever, of course, were made in 1967 with the establishment of a School for Architecture at the university level in Wisconsin. This was the work of many both within and outside of our profession. Now that it has been established, our work must continue in its development. I can think of no single

item that should influence the level of Wisconsin architecture more than a "good" school of architecture. I look forward to a fresh scene and approach appeal to the public, availability of good talent locally and an opportunity of stimulating refresher seminars to the "weary" practitioner.

We must also continue our efforts in education through the W.A.F. in financial aid and to technical seminars and review courses presently in progress. Also not to be forgotten is the School of Environmental Design at the Madison campus.

#### (5) The Profession

In my preceding comments, you have noted that I feel progress has been good in all areas and hard working committees appear to have their tasks well under way. This, however, is no time to relax, but may be a time to take a good look at ourselves to see how we can improve our profession.

I believe each of us as individuals and our organization as a group must become more involved in activities influencing man's environment. This not only means committees of city beautification, but chambers of commerce, church boards, school committees, government positions in zoning, planning, and many others at local, state and national levels. Our opinions are looked for in these fields and too often they are reluctantly or timidly given. We must make ourselves known as the leaders in the influence of man's total environment.

We, at this board level, must be alert to new areas of tasks. Too many times problems have come up and only the immediate issue has been resolved. Many times the roots of these problems continue to exist but the issue is dropped to "fight the next fire." Let's hope our volunteer fire-fighter days are over and those of planners are beginning.

I look forward to certain times set aside at each board meeting where a controversial or stimulating subject may be discussed at greater length. These types of discussions do come up regularly and I am sure are enjoyable and beneficial to all, but too many times they are cut short due to the requirements of an agenda.

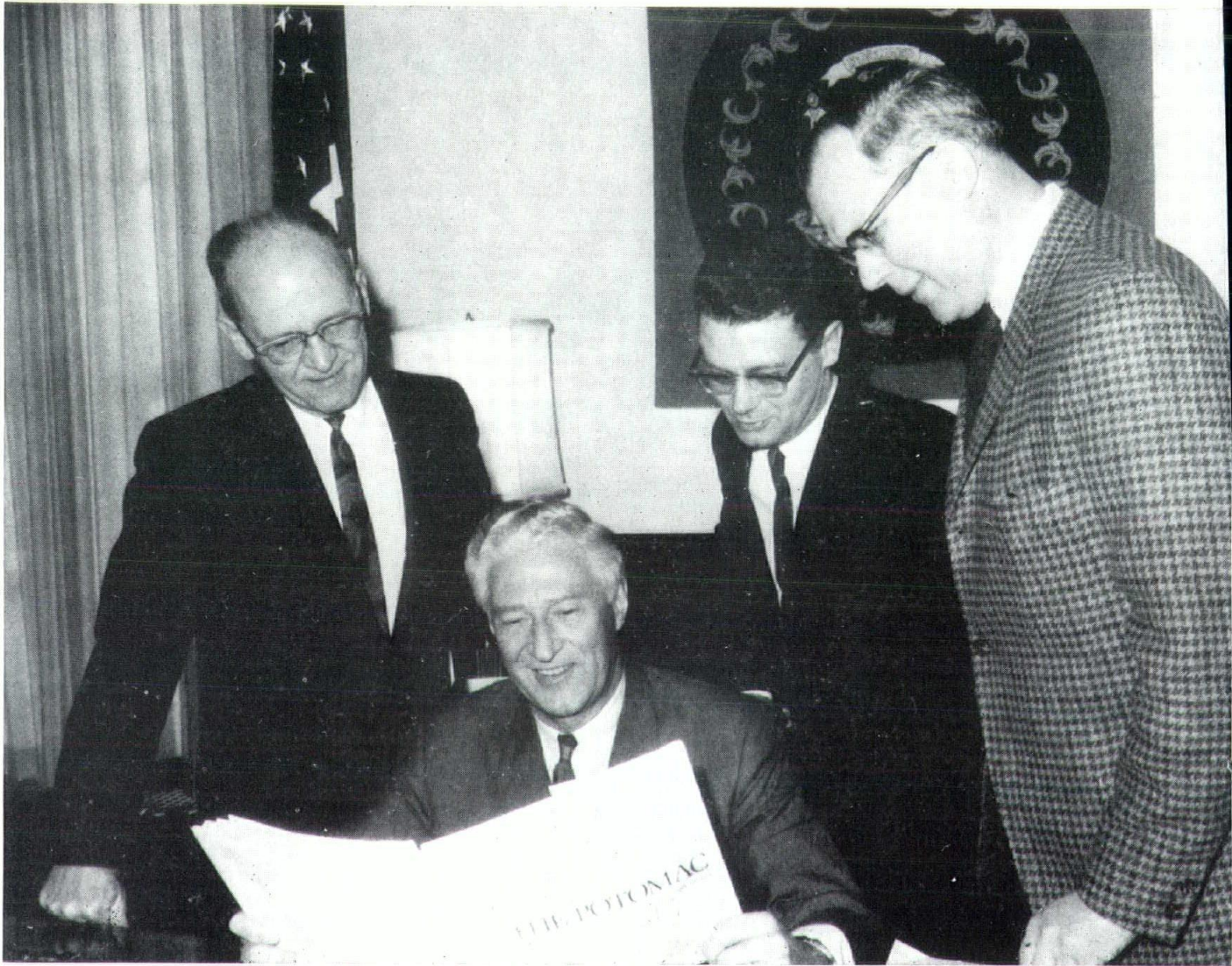
I mentioned the professional Review Committee before — I look forward to this committee as a great aid in improving the level of our profession.

Finally, I would like to see us improve our relations with other professions and the construction industry. In this regard I would like to establish a policy of inviting representatives of various groups to meet with this board each month. Perhaps an 11:30 to 12:00 discussion session along with their attendance at lunch would be a means of establishing a closer relationship with these groups. I am talking about the doctors, dentists, lawyers, contractors, engineers, agencies of government and many others. Presently we meet with these groups only when we have mutual problems. I believe continuous communication among all of us would be beneficial all around.

That completes my thoughts on the coming year. I'm very appreciative of this board's faith in electing me to this position, and I promise to give it my best effort. Thank you.



## A.I.A. Presents Governor With the Report of the Potomac Planning Task Force



*L. to r. John P. Jacoby, Governor Warren P. Knowles, Robert Yarbrow and Leonard Reinke.*

On December 26, 1967, John P. Jacoby, then president of the Wisconsin Chapter, A.I.A., Secretary-Treasurer Bob Yarbrow and Leonard Reinke, Chairman of the Wisconsin Chapter, A.I.A. Community Relations Committee, visited with Governor Warren P. Knowles to present him with a copy of *The Potomac* report accompanied by a letter from Secretary of the Interior Stewart L. Udall.

*The Potomac* report is the result of two years of devoted and penetrating work of the Potomac Planning Task Force under the chairmanship of the distinguished past-president of the Institute, Gould Odell,

several architects and colleagues from related disciplines.

In February 1965 President Johnson designated Secretary of the Interior Udall to prepare a program which would make the Potomac "a model of scenic and recreation values for the entire country."

Thus the American Institute of Architects was honored by Secretary Udall's request to form the Potomac Planning Task Force and in September of past year at a joint press conference with Interior Secretary Udall, the Potomac Planning Task Force Report *The Potomac* was made public. While the Depart-



ment of the Interior is distributing the report to all members of Congress, the Institute and its state components took the opportunity to present a meaningful program to the entire country by presenting copies of the report to all governors of the nation through the component presidents.

President Robert L. Durham, FAIA, described the importance, purpose and content of *The Potomac*:

"The guiding principles of this report are set forth brilliantly. Now these principles must be adapted to the urgent needs of all our great rivers. The alternative course of inaction will find us before long with no hope of restoring these national treasures.

The report states clearly what must be done to save the Potomac, our nation's one truly national river. The Potomac can be saved if Congress and the President wholeheartedly and promptly carry out the recommended measures of the President's Potomac Planning Task Force. Foremost among these are the establishment of a Potomac Development Foundation and a \$50 million per year fund for land banks, research and development studies. If this is done, it will have a significant effect far beyond its own shores for its precepts are applicable to all rivers.

There are at least 20 major river basins in America. Our governors, mayors and Congressmen must be brought to understand and support the conceptual framework proposed in *The Potomac*. It is, in short, a new way of looking at a river and a new method of planning for its recovery. The report should be given wide circulation to officials of government at every level, to community leaders and to our universities and libraries. It should properly become a basic text in our high schools and colleges.

The report clearly spells out how to proceed with the rehabilitation of a river, using ecological principles that range from the control of water pollution and visual pollution to recommendations for recreation and highly urbanized waterfront development. The authors of the report have largely succeeded in their aims of producing a report that "takes account of the basin's rapidly growing urban populations and their inter-related needs . . . relates the complex uses of land in the basin to the people's need for an unpolluted and enjoyable river and recognizes that the river is a product of the land it drains and practices of the people who inhabit its basin."

Above all the report sets forth specific remedies tailored to the Potomac, but provides for that which is most lacking throughout the country, an "integrated plan for developing effective basinwide remedies." *The Potomac* provides a conceptual framework for all

river basin planning. Other concepts may be applied to the report such as the outstanding "*State-wide Landscape Analysis for Wisconsin*" of 1964 or the "Metropolitan Open Space from Natural Process Report" recently prepared for The Department of Housing and Urban Development at the University of Pennsylvania.

Also, the report corroborates the AIA proposal for the solution of other equally complex environmental problems such as the social, economic, and physical impact of urban highways. We recently recommended to Congress, The Department of Housing and Urban Development, and The Department of Transportation, the formation of multidisciplinary Design Concept Teams. The team concept, composed of architects, engineers, economists, sociologists, and planners, is being proven in Baltimore in the planning and design of its 20-mile network of the Interstate Highway System, and in Brooklyn's soon-to-be-announced development of a linear city.

In the work of the task force, many other well-polished concepts have been incorporated. These have been well related to original contributions. Here, for the first time, separated into the component parts of the river is "river landscape" — the "river," the "river-side" and the "setting."

In *The Potomac*, three distinct geological settings are treated in depth to illustrate fundamental erosion, pollution, and water conservation principles. The case has even developed that some settings should *not* be built upon — land where slopes exceed 25% of flood plains, for example.

The concept is set forth in *The Potomac* for a "regional ecological inventory." This need applies to all of our land as a prerequisite of any further urbanization of natural landscapes. Enormous benefits would come from this, both through savings and through unforeseen design opportunities. This means that social and ecological cost benefit analysis should now help to guide our nation's future development.

It is here that a great virtue of *The Potomac* stands out. As a broad, yet detailed conceptual framework, the document is fully adaptable to new technology in land-use planning. As President of the American Institute of Architects, I offer the thanks of America's architects to the task force, which includes several of our most distinguished members: to President Johnson, who launched this effort to make the Potomac a model for the entire country, and to Secretary Udall, whose energetic efforts in behalf of environmental health and conservation are a continuing inspiration to us all."

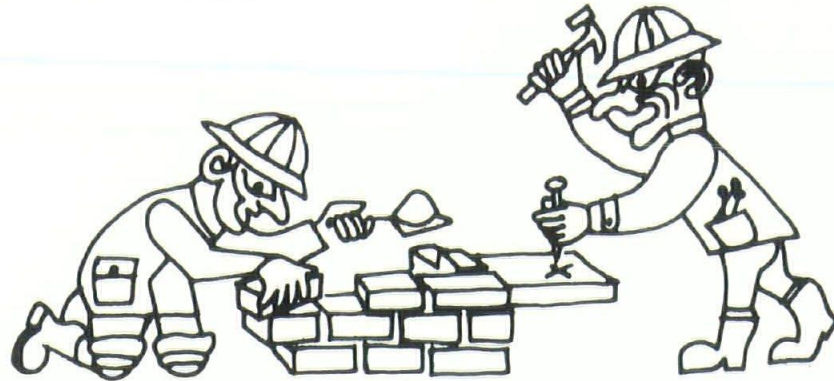


# New developments

## Requiring Imagination and Innovation

Robert V. Estes

Marketing Development and Information Representative  
Portland Cement Association, Wisconsin District



By taking a look at the magnitude of the economic developments (population, income, education, etc.), we can get a better grasp of the social-political developments that will have to evolve in order to meet the economic developments. These developments we then must relate to construction activity and cement usage, which brings us to new and refined developments in concrete construction.

Let's begin with the economic sector: The population of the United States is presently close to 200 million and is expected to increase to 265.6 million in 1985; by the year 2000, we will have about 335 million residents or about 70 percent more than at present. Important shifts in the age structure of the national population are expected in the future as the result of past trends in birth rates. Between now and 1985, the most rapidly growing groups are expected to be those of college age and those in young adulthood. The age 65-and-over group will also experience considerable growth. Increased population will also bring expansions of our urban population. In 1900, only 40 percent of our population lived in urban areas. By 1960, the figure had jumped to 60 percent.

The Urban Land Institute has come to some revealing conclusions about where the population will be located in the future. In the year 2000, says the Institute, three-quarters of the population will be concentrated within a handful of regions that together will cover only about a tenth of all our land area. For the most part, they will be packed sardine-tight in three primary urban zones. These three areas (the Metropolitan Belt, the California Region, and the Florida Region) will hold some 187 million or almost the equivalent to today's national total. In addition, there will be 13 outlying urban regions and six freestanding metropolitan areas of 1 million or more persons each. The total for these 19 outlying regions and metropolises will be about 52 million.

The population of the future will also be better educated than today. Twenty years ago approximately 50 percent of the population between the ages of 25 to 29

were high school graduates and less than 6 percent college graduates. In 1966, 71 percent of the population in the same age bracket were high school graduates and 14 percent college graduates. This percentage will increase even greater in the years ahead.

Coupled with the increase in population and a better educated population is a rising personal income. Twenty years ago, the average income per family was \$3,000; today it is approximately \$7,400, and it is expected to total \$10,000 in 1977.

The Gross National Product today is approximately \$775 billion and is projected to total more than 1 trillion dollars in 1975. Construction has long been a major force in the United States economy. In 1966 total construction totaled nearly 100 billion dollars or approximately 13 percent of the Gross National Product.

As a very rough guide, today's 200 million consumers require about \$75 billion of annual construction work. If this relationship continues to hold, they'll need more than two-thirds again as much in annual physical volume of construction by the year 2000. And if present cost trends persist, the bill for this work will come to something like \$300 billion. However, in view of the increasing emphasis on renewal projects, we might expect the total volume of construction, both new and replacement, to increase a bit faster than population growth.

From an architectural standpoint we can translate these figures into a need for buildings, homes, offices, factories, schools, hospitals, churches, and transportation facilities. The pressure is on to solve the many public problems existing today — housing, transportation, pollution, education, and medical care.

Finding solutions to our public problems and participating in the giant markets they are creating is our challenge today, and systems will continue to be a byword in most projects.

Some major hardware problems remain to be solved. We're still laying bricks one at a time and driving nails by hand. However, many feel that solving "software"



problems poses even greater challenges. Thomas O. Aine, manager of Tempo General Electric Company's Center for Advanced Studies, cites an example: "We can build beautiful schools but our real problem in many areas is how do we get a Negro youngster to go through 12 years of school with passing grades." Another prime example is housing. This industry has been held back to a large degree by local politicians, labor leaders, and vested interest groups who have succeeded in keeping obsolete building codes and zoning restrictions on the books.

We're beginning to identify some of these problems, but there is still much room for progress toward their solution.

The construction solution to our economic and social requirements can mean dramatic new uses for concrete. During the past 20 years, the cement industry has enjoyed fantastic growth in its various uses for the new construction market. Prior to World War II and for nearly ten years after the war, cement found its way into new building principally as a structural agent. Little exposed concrete was used. This, however, was soon to change. Architects in the United States, such as Saarinen, Yamasaki, Philip Johnson, and Edward Durell Stone, realized the esthetic beauty and versatility of concrete and started using it as it was intended to be used.

We have witnessed in recent years the emergence of prestressed concrete, onsite and offsite precast concrete, and slip-forming. The question is, "Where do we go from here?" How will we compete in this impulsive and dynamic market and society with a product that will be functional, economical and inspiring?

The answer lies in technology — improved methods that make construction with concrete more economical and competitive in new as well as familiar areas and new cement products that will compete with existing and as yet undiscovered new materials.

System building is a relatively recent concept that we hear more and more about.

The phrase "system building" has been tossed about rather loosely for a good long time, but only now is it beginning to be used in its proper context. System building goes under several aliases — industrialized building, packaged building, or preengineered building. What is system building? One definition I came across is "the coordination of design, manufacture, site operation, and overall administration into a disciplined method of building." Put more simply, system building reaches its objective when most of the work on a structure is done inside a factory and as little as possible is done in the field.

The concept of system building came into prominence in Europe at the end of World War II and today is more widely used than ever before. Russia, for example, is building entire cities out of factory-made precast concrete components. One of these new, all-concrete cities, Bratz, was built about 8 years ago and already has a population of more than 700,000. The story is much the same in other European nations. In England, system building is expected to total 40 percent of new housing in 1970.

System building, while not as all inclusive as the

European version, nonetheless has made tremendous strides in America. Sales of the so-called packaged buildings marketed by the metal and steel industries have been on the increase. Probably two of the most comprehensive and most publicized building systems developed to date in this country are the School Construction Systems Development project organized by the Ford Foundation's Education Facilities Laboratories and the University Residential Building Systems, a program of research, design, and development of building components for the construction of student housing for the University of California. Another well-promoted building system is the Space Grid System, which is being advertised for industrial, educational, commercial, and recreational buildings. It is inevitable that, as the need for construction grows and labor costs keep climbing, more and more system building will take place in this country and the concrete industry will be ready to accept the challenge and take advantage of the opportunity.

Last year an architect's college thesis came to life at Expo 67 in Montreal. The transformed thesis took the form of a structure of gray concrete that looks like a pile of large blocks stacked loosely into a pyramid on a long pier extending into the St. Lawrence River. This unusual structure, some say revolutionary, designed by Mosche Safdie, a 29-year-old native of Israel, is called Habitat '67. This radical concept could conceivably be a part of Americana in the not-too-distant future. Habitat '67 consists of concrete boxes stacked on top of one another in a zigzag pattern constituting a 12-story pyramid. Each box, weighing 820 tons, is 38.6 ft. long, 17.6 ft. wide and 10 ft. high with a wall thickness of 6 in. In all, 354 of these modular precast concrete boxes form 158 housing units ranging from one to four bedrooms and in area from 600 sq. ft. to 1,700 sq. ft.

The construction methods introduced in Habitat were aimed at economy and quality. The project, however, cost \$22.5 million, which was expensive and substantially above original estimates. But this can be attributed in part to the experimental nature of the development and the small number of units constructed. Full economic advantage of such a project can be realized only when the methods are applied to much larger complexes.

The design of Habitat has made possible a production system in which the techniques of large-scale prefabrication and assembly-line organization are being used for the first time on this continent and should provide a tremendous potential for future habitats as low-cost developments or condominium dwellings.

Tech-Crete, a collaborated effort of Sepp Firnkas and the architectural firm of Carl Koch and associates, claimed to be the only bona fide concrete building system in the United States was introduced about 3 years ago. Designed originally for low-budget housing, Tech-Crete is a modular system employing precast load-bearing wall panels and hollow-core floor-slab units connected by post-tensioning. Feasibility studies reveal that the same system and its basic components can be used for structures ranging from 1 to 32 stories in height. While it employs assembly-line methods to



the fullest, the system is still flexible enough to provide variation and change from room to room without appreciable cost.

Balency, MBM Associated, is a French-Italian combine whose industrialized building system is using precast concrete. This is firmly established in a number of European countries. A New York architectural consultant believes that the Balency Building System, of all the two dozen or so industrialized systems now used, best fits into the American building scheme. This is due to the fact that practically all techniques and materials comprising the Balency System are also used in this country but never in the coordinated form of a completely industrialized system—the basis for improved speed, quality, and economy. Promoters of the Balency System believe that were it to be adapted to U.S. conditions and costs, it would slice labor costs and construction time in half and provide a savings of 15 to 20 percent in the cost of building the shell; it also would result in a savings of 3 to 10 percent of over-all construction cost of the installation if mechanical services were included.

Building systems are supposed to gain their big advantage through the use of precision-built factory-made components. Presently, Schokbeton Products Corporation is marketing a cast-in-place framing system for multi-story buildings that is said to provide design flexibility and esthetic attractiveness not obtainable in the so-called panel-and-box systems. Called Sectra, the French owned industrialized structural system is intended for low-cost housing up to 25 stories high as well as for dormitories, hotels, and motels. Use of the Sectra System will reduce the cost of conventional cast-in-place construction in this country by as much as 20 percent, according to George J. Santry, president of Schokbeton Products Corporation.

The basic ingredients of the Sectra System are a series of huge three-sided steel forms set in place by tower crane and furnished with heat by a portable heating plant located at the jobsite to hasten the hardening process. The result is an on-the-spot prefabrication process whereby the monolithic building is combined with nonstructural precast-concrete elements. The reception of this revolutionary building system has generally been optimistic.

I have briefly mentioned several building system approaches. What effect will such systems have on the construction industry and the cement industry in general? All indications point toward a tremendous upsurge in building construction activity in the future. The question is, "How can such vast production in building construction be accomplished?" The expected demand cannot be supplied if present methods of the commercial building trade are applied. The building trade must adapt itself to more efficient methods.

There is no doubt that an effective increase in the capacity of the building industry in all fields will be possible by means of prefabricated construction. The emergence of the preengineered system building indicates a strong trend toward more offsite assembly of components in all industrialized countries. While not so obvious, still another basis for the increase in prefabrication is the increased acceptance and even pro-

motion of component building coming from the money lenders.

Portland cement concrete, possibly more than any other building material, lends itself with much versatility to industrialized methods of production. It is up to us to make sure we are part of this new building concept. Concrete's big advantages for a structural system lie in its ready meeting of fireproofing, acoustics, and loading and spanning requirements.

In addition to new concrete technologies, the future will undoubtedly bring new high-strength and precise retarded cements and expanded markets for such products as shrinkage-compensating cements, expansive cements, colored cements, and modified oil-well cement. Various research laboratories are working on concrete stains as well as other unique methods of surface treatment for architectural concrete.

To quote John Galsworthy, a noted British novelist and dramatist, "If you do not think about the future, you cannot have one." This statement, aimed at a world changing from the nineteenth to twentieth century, is still apropos for the same but infinitely more complex world now on the threshold of the twenty-first century.

Lev Zetlin, in a recent article entitled "The Engineer's Third Millennium," foresees buildings rising to almost unlimited heights; in urban areas, buildings will start high above the ground at maybe 200 ft., forming clusters of towns and cities above the earth. Despite the heavy standardization of components, he believes there will be no standardization of building because components will be designed to be combined into a great variety of architectural forms.

Our present building systems increase in cost as they rise in height. By utilizing high-capacity, synchronized jacks we could eliminate the expense of building from the first floor up and extrude them into the air. They would be completely assembled on the ground and lifted into the air, reversing our present procedure by building top floors first.

Just as construction will rise to new heights, so will it descend to new depths with cities built under the ocean. Double- and triple-decked jetways will be necessary to accommodate increased air travel. While we're looking to the future, how about rocket launching areas to transport people to other planets?

This is all rather grandiose thinking, but not unrealistic. Where we fit into the picture is up to us. The rewards for bold imagination and innovation will be great.

It is up to us—the Portland Cement Association, the cement manufacturing companies, and related industries—to see that concrete meets the challenge of the future with more ingenuity and economy. We must develop closer association and cooperation with structural engineers, architects, suppliers and users of our materials, government agencies, and planning boards. Cost reduction innovations will hold the key to the future. We must assist in developing new technologies to make it more economical to build in concrete both from the design standpoint and the construction standpoint.



## The Dominican Education Center at Sinsinawa, Wisconsin

Architects: Siberz • Purcell • Cuthbert of Madison

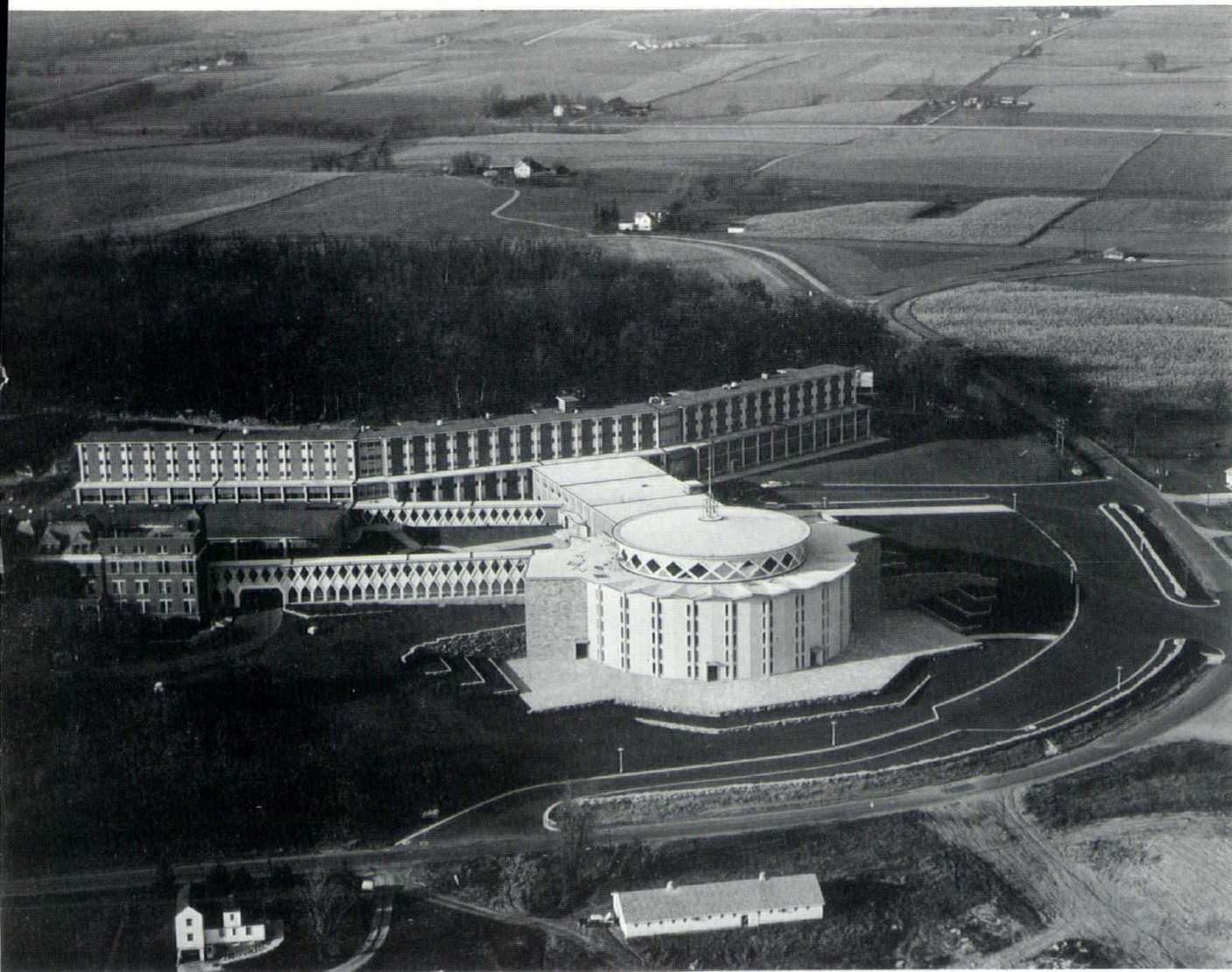
The Dominican Education Center is located on the south slope of Sinsinawa Mound in Southwestern Wisconsin.

The older buildings occupy a beautiful site, the oldest portion of which was designed by Father Samuel Mazzuchelli, an early missionary who worked in Southwestern Wisconsin.

The problem was to create a group of buildings to accommodate the growing needs of the Motherhouse and Educational Center.

The Architect, having travelled in Europe, thought how appropriate it would be to design a group reminiscent of the hill towns of Italy and Southern France.

Several schemes were developed. The first was to





place the buildings on the top of the Mound which would require an inclined railway from old to new buildings. Another scheme planned a mall in front of the present buildings.

Other schemes were developed to the west and rear.

The western part of the site was occupied by farm buildings and looked south to Galena and the Mississippi. Then one day the Architect decided to move the farm buildings, and the new buildings now stand where chickens, grapes, hay barn and all stood for many years.

This site made possible level walkways from the old to new buildings also a good approach from the highway to auto courts and terraces.

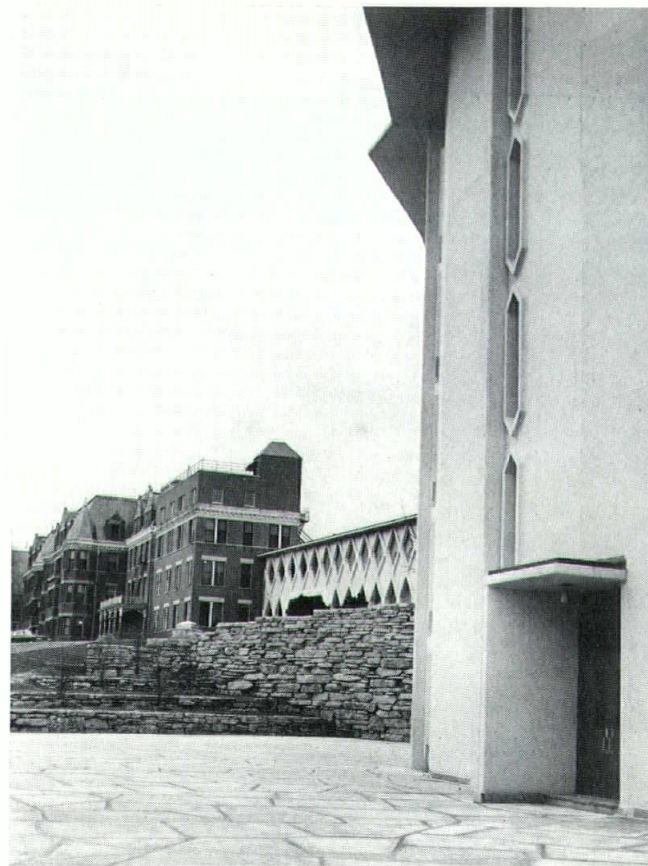
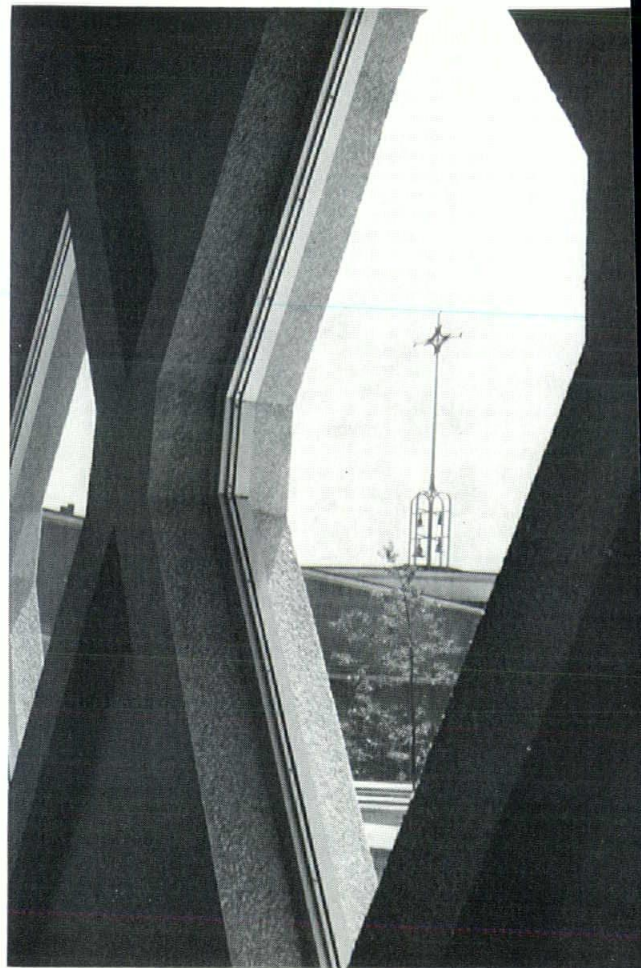
Also the walls of the old "Fort" which has a long history formed the base for a lookout over the countryside.

The building group consists of a Chapel, Aula, Library, Novitiate for 300 young women and classrooms, a refectory for 600, Rotunda and reception area. The buildings are grouped to form an interior court with outside altar and floral circles. Exterior murals of ceramic tile are set in certain panels between white Colorado Quartz crystal of precast concrete panels and sculptured shapes. A rose face brick similar to the older building brick completes the exterior.

The Chapel is circular with folded shaped ceiling radiating from a center circle — the beautiful slab glass and concrete windows were designed by Sister Mary Teresita OP and executed by Bernard Gruenke of Conrad Schmitt. A giant pipe organ graces the balcony. The Chapel also includes a relics gallery, requiem chapel, other small chapels and sacristies.

The planning required three years and construction two years. Reverend Mother M. Benedicta is the Mother General, Sister Marie Martine was her coordinate. All enjoyed the task and are pleased with the building which will stand as a landmark in this early part of Wisconsin.

The buildings are located near Highway 11 where it intersects with Highway 35 called the River Road about five miles from East Dubuque, Illinois.









## CONCRETE MASONRY: The Modern Building Material

*Reprinted by Courtesy of Indiana Architect*

Masonry construction, as a building technique, goes back in time some 6,000 years. Yet, as a technique, it continues to find favor because of its beauty, its adaptability to form an architectural treatment, and its ability to perform structurally. Current studies indicate that concrete masonry accounts for some 75% of the total masonry wall volume presently being constructed in the United States.

Early in the development of concrete masonry, the block plant was a one-man backyard operation. Concrete masonry was an "acceptable" material; it had been used primarily as backup (usually causing it to be hidden) and, therefore, performing strictly a utility function. Today, however, in our dynamic, ever-changing construction industry, concrete masonry has become a new and exciting material and is being used more and more as the finished wall—both exterior and interior.

Block manufacturers have kept pace with the rapid progress of our twentieth century. What used to be the one-man backyard operation has grown, in many cases, to a highly mechanized manufacturing plant. Today's manufacturing plant includes high production machines, overhead storage of materials, automatic weight batching and instant moisture control. Handling block in the plant is accomplished by power off-bearers which take the block from the block machine and load them on racks, power cubers and high speed lift trucks. Curing operations now include the more elaborate methods of steam curing.

Comprehensive tests have been conducted by col-

leges and commercial testing laboratories all over the country, and have provided data necessary to establish concrete masonry as an acceptable building material. Further tests by the Portland Cement Association have shown patterned concrete masonry walls to conform to code requirements both for axial and flexural loads. Other tests have been made to establish the sound transmission and absorption properties as well as the thermal insulation value and fire resistance of concrete masonry.

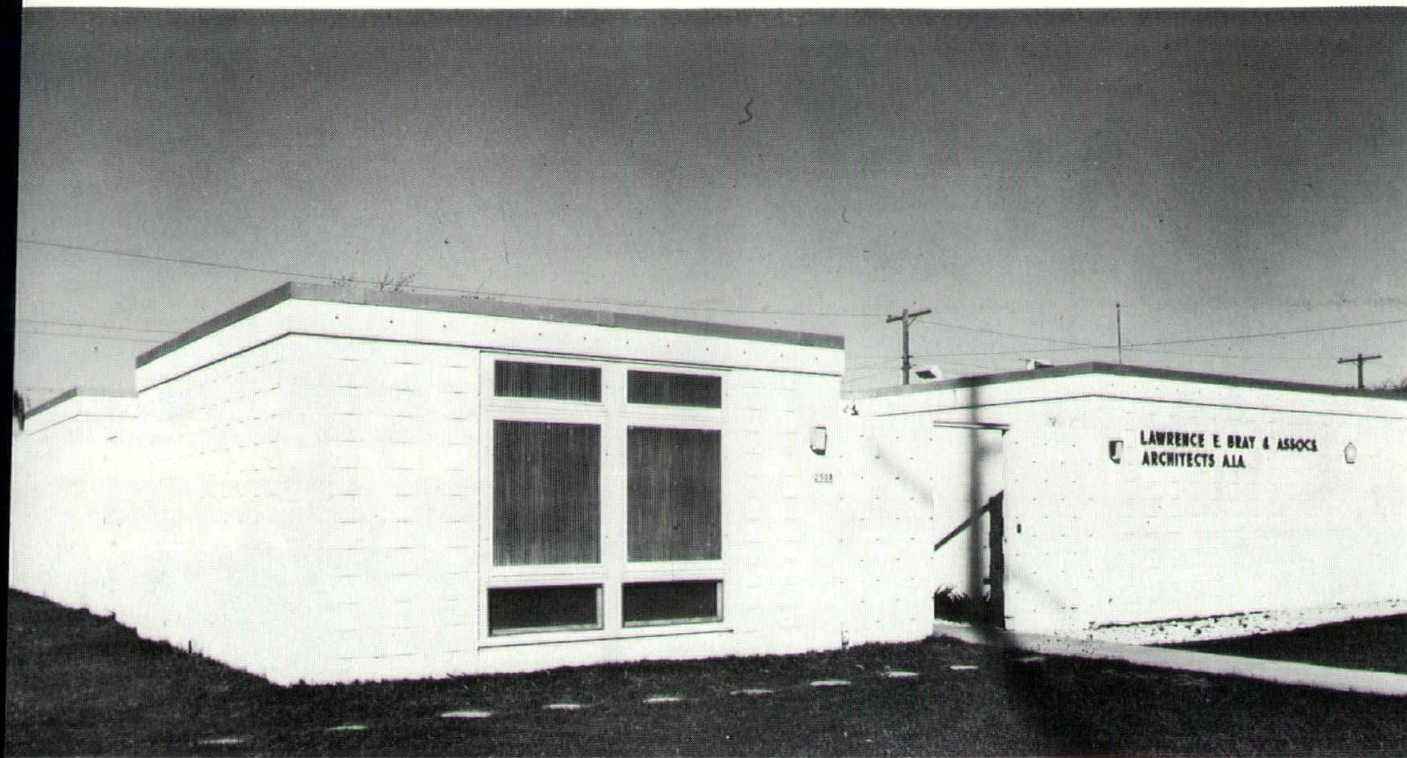
The tremendous volume of concrete block being used today makes it increasingly important that proper design and construction procedures be used to insure satisfactory performance. Each building material has its own characteristic and because of this, design and construction practices peculiar to the material must be observed. The Concrete Masonry Association, in cooperation with the Portland Cement Association, recognizing the need for this technical information assembled information sheets on specifications and control joints.

Our society, generally having satisfied itself with the engineering properties of concrete masonry in meeting the demands of our present-day building technology, has caused man to turn his attention to the area of aesthetics and now is making demands on the material to be pleasing to his eye. In the language of our teenage sons and daughters, beauty today is the "in thing." Any building material, to be generally accepted and used today, must meet the requirement of being attractive and pleasing to the occupant.

"Concrete Masonry"—fits very comfortably and







*performs well in the functions requiring engineering properties—it likewise fits very comfortably in serving the architectural demands.*

The offices of Lawrence E. Bray and Associates in Sheboygan, located at 2508 South 8th Street, are constructed of simple exposed concrete block, exteriors as well as interiors, and this construction with many fine architectural concepts provides a functional as well as pleasant atmosphere. The building was initially constructed for a "cooking ware" sales organization. When

it became available, Larry Bray, pressed for space by ever increasing work projects and therefore staff, moved into the new quarters in June of 1966. His comment on his new quarters: "The simple construction with three interior courtyards makes a very pleasant atmosphere throughout the space. A conference room serves as the hub of many in-staff as well as outside committee meetings. Now, with the purchase of the building, we also intend to do more with exterior landscaping and interior decor."





# WAF

## Wisconsin Architects Foundation

### Confirmation

14 December 1967

Dr. J. Martin Klotsche, Chancellor  
The University of Wisconsin — Milwaukee  
Milwaukee, Wisconsin

May I take this opportunity, Dr. Klotsche, to thank you and Mr. LaTour for meeting with representatives of the Wisconsin Architects Foundation on November 21. I feel the discussion we had was of mutual benefit.

The purpose of this letter is to attempt to record the enthusiasm, spirit and commitment shared by all of us at this meeting. The Wisconsin Architects Foundation renews its pledge of interest, concern and support for the School of Architecture at UWM. This support will take the form of the following:

1. Scholarship Fund. As you are aware, the Wisconsin Architects Foundation has contributed approximately \$33,000 in the form of tuition aid through the years to some 80 architectural students. At the Fall meeting of the Foundation Board of Directors (August 25), it was voted that the tuition grant program as we have known it (aid to Wisconsin students attending schools out of the State) would be phased out to allow the Foundation to direct its support to the new School of Architecture at UWM. We would anticipate, based on past experience, that as this transition is completed, the amount of scholarship money available for UWM students would be in the range of \$4,000 to \$5,000 per year.

2. Underwriting of a Professorship. Representatives of the Foundation agreed to contact interested friends and organizations for the purpose of securing sufficient funds to establish a Research Professorship in Architecture. Organizations that have previously expressed an interest of this type will again be contacted. Such efforts will be coordinated with the University.

3. Research Grant. The Foundation has expressed an interest to work with the Dean of the School of Architecture to develop future research programs and will pledge the support of the Foundation in soliciting, and to the extent possible, contributing of funds for such purpose.

For purposes of information, Chancellor, I have enclosed a letter dated October 1, 1963, addressed to Dr. Harrington from Roger Herbst, President of the Foundation at that time, expressing the interest and

support the University could expect from the Foundation. The intent of this current letter is to show the continuity of such support and to project it now into the months and years ahead.



William P. Wenzler, President  
cc: Miss Dorothy Schweitzer, Executive Secretary

### Scored Block Scores Benefit for Foundation

In the October 1966 issue, Wisconsin Architects Foundation published a letter received from John Barron Shepherd of The Shepherd Associates announcing that the Foundation was to share in the profits on the sale of a concrete block developed by them and manufactured by Best Block Company. The generous gesture of The Shepherd Associates was in compliment to the Foundation's efforts to promote a School of Architecture in Wisconsin as well as to its Tuition Grant Program of which Mr. Shepherd had been a recipient the first year of its inception, 1954, when he was a student at the University of Notre Dame.

Mr. Shepherd and his associates have the deepest gratitude of the Foundation's Directors for the check for \$1,555.75 which was presented in December by Mr. Paul F. Bronson, President of Best Block Company, to the President of the Foundation and the Executive Secretary. Coming at this propitious time when the Foundation is converting to a Scholarship Program for the new School of Architecture at UWM, the "gold" from the TSA Random scored block is an inspiring contribution.

### End-of-Year Gifts

Harry Bogner, AIA.....	\$ 300
Osborne, Incorporated .....	150
Best Block Company .....	1,000
Bauer Construction Company .....	100
Kloppenburg & Kloppenburg*.....	100
Western Builder Publishing Company**.....	75
Leonard Hess (former student).....	25
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\*"For the new School."

\*\*In addition to excellent editorial, December 7, 1967, issue "Western Builder."





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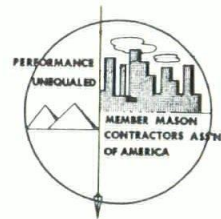
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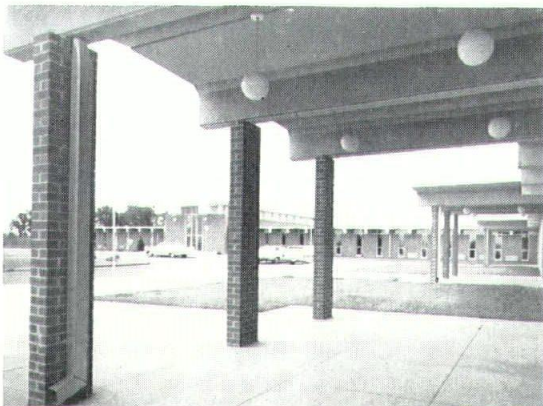


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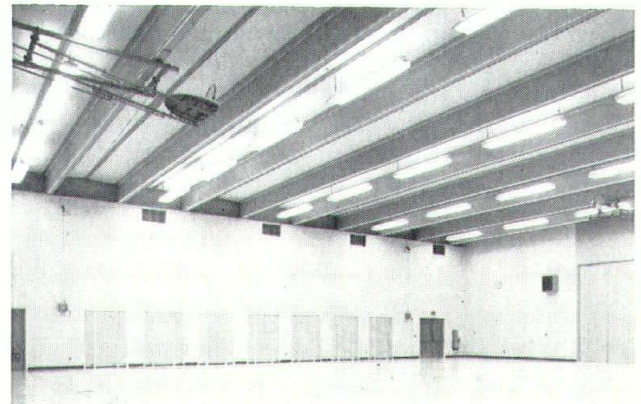
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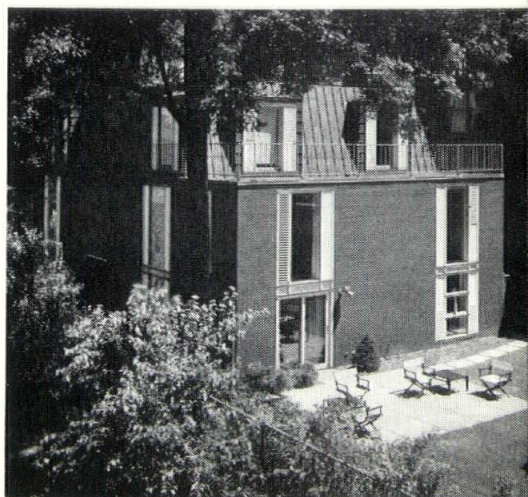
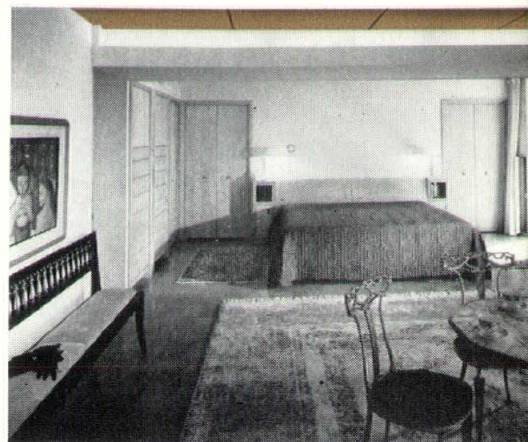
**View 2** — Gymnasium and Multiple-Purpose Room.  
12 pcs. — 32" x 8'-0" x 80' Prestressed Concrete Giant Tee Roof Members.

**Notre Dame at De Kalb Girls High School, De Kalb, Ill.  
Owner: School Sisters of Notre Dame, De Kalb, Ill. (Mequon, Wis.)**

**Architect: Herbst, Jacoby & Herbst, Architects, Milwaukee, Wis.  
Contractor: Duggan-Karasik Construction Co., Skokie, Ill.  
Prestressed Concrete: J. W. Peters & Sons, Inc., Burlington, Wis.**







Town House at 5800 Blackstone Avenue, Chicago, Illinois. Architects: Keck and Keck.

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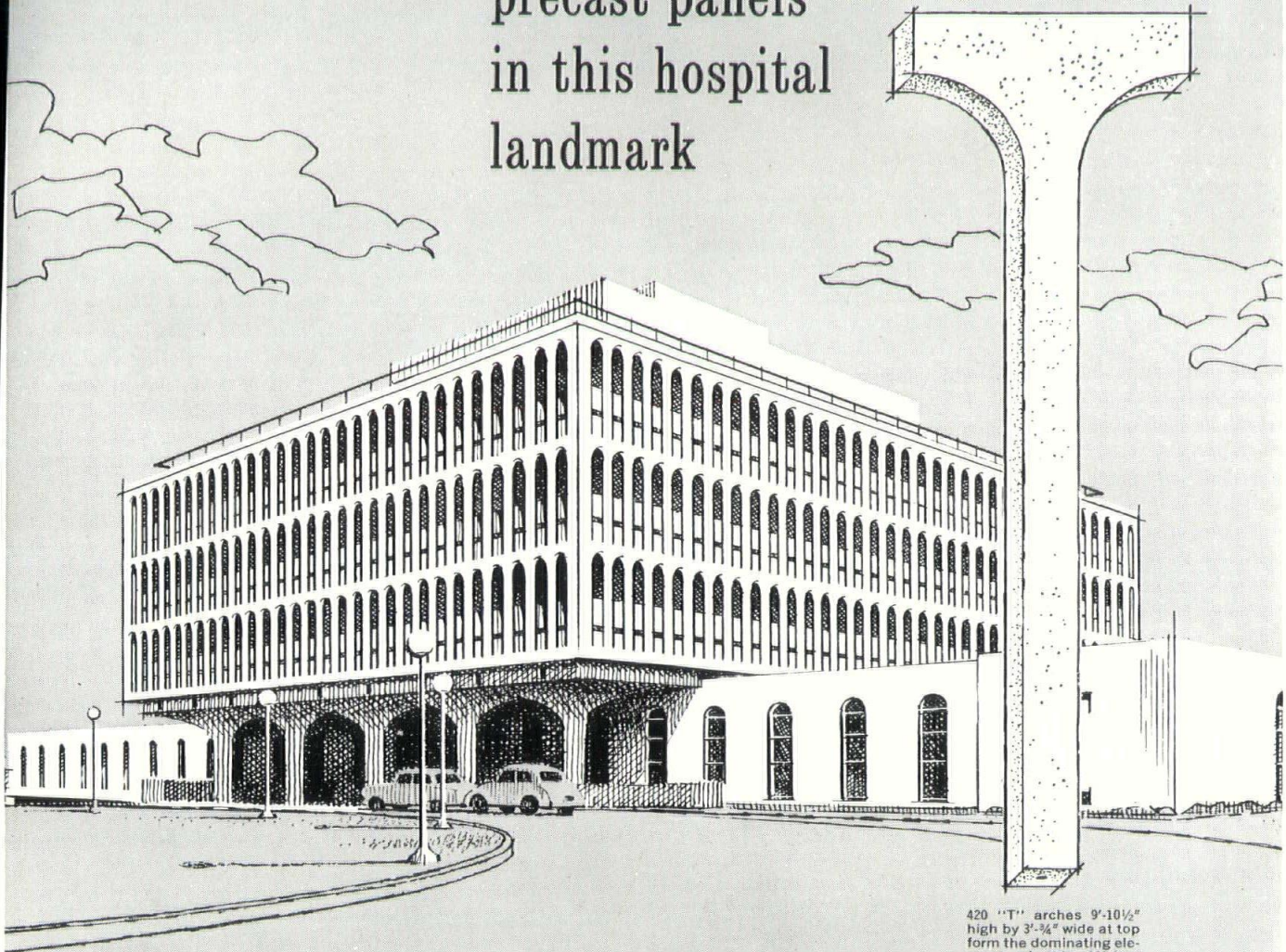
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420 "T" arches 9'-10 1/2" high by 3'-3/4" wide at top form the dominating element of this 163-bed hospital.

**ST. JOHN'S SMITH-TOWN HOSPITAL,** Smithtown, N. Y. **Architect:** Frederick G. Frost, Jr. and Assoc., New York, N. Y. **Gen. Contractor:** John W. Ryan Construction Co., New York, N. Y. **Precast Units:** Vernon Art Stone Co., Inc., New York, N. Y.



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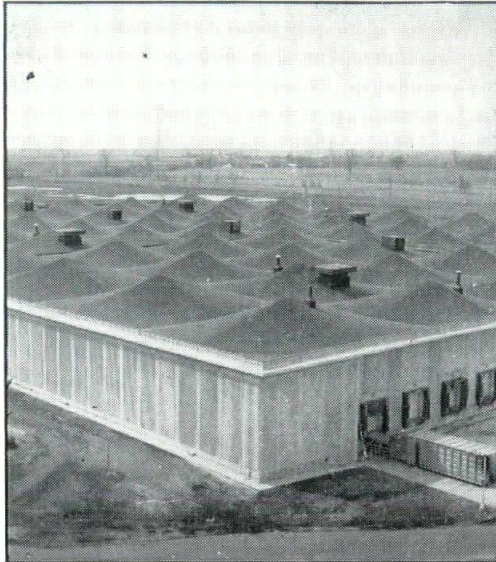
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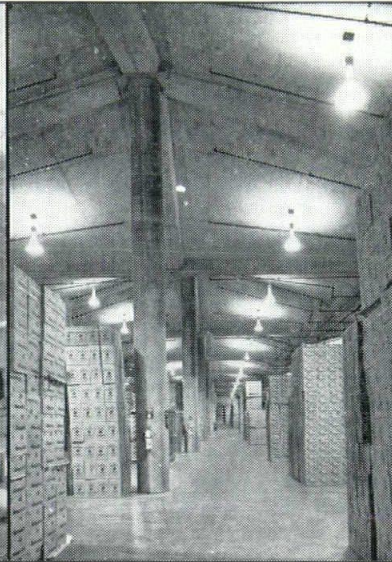
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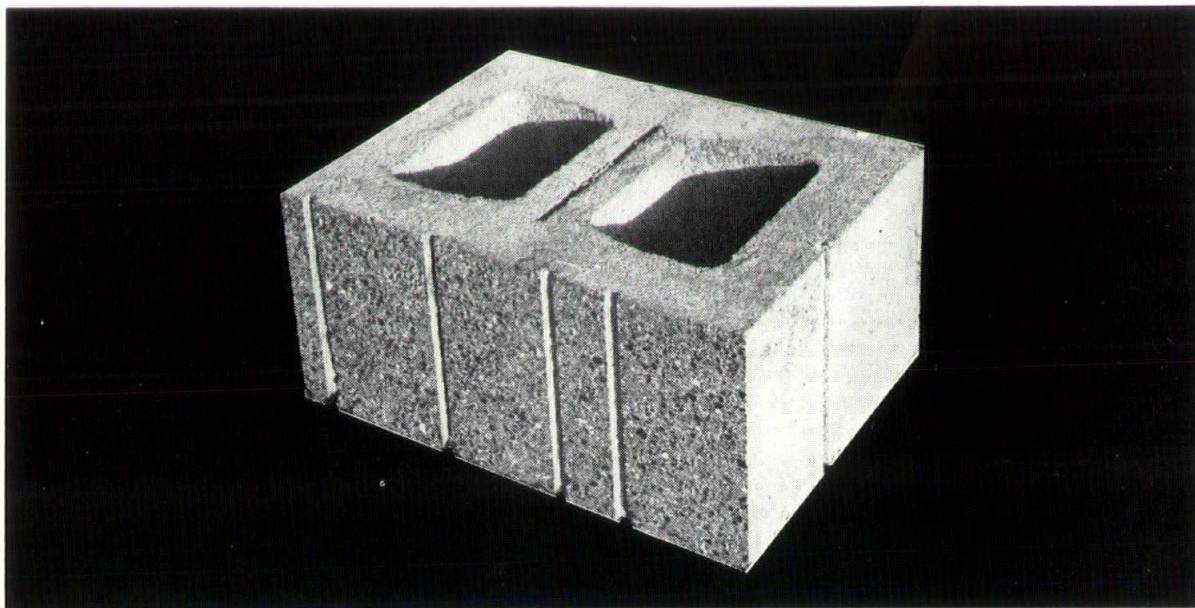


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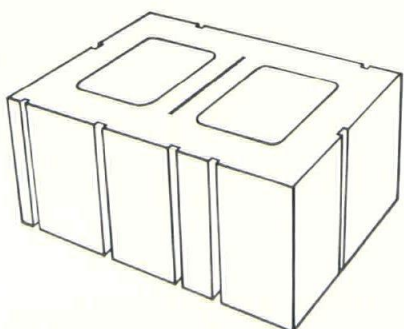
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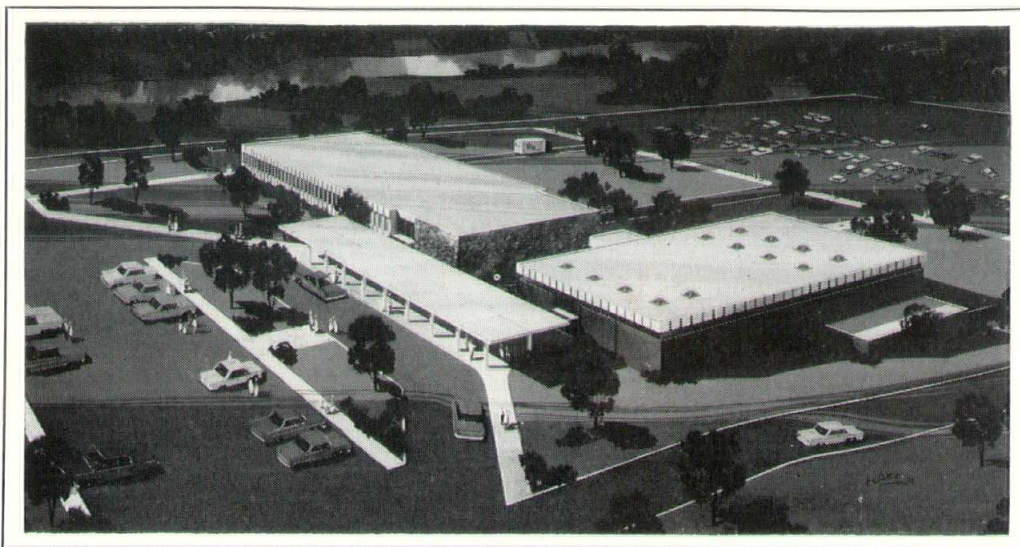
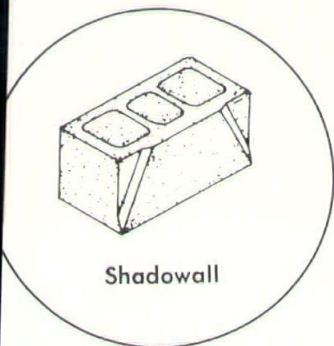
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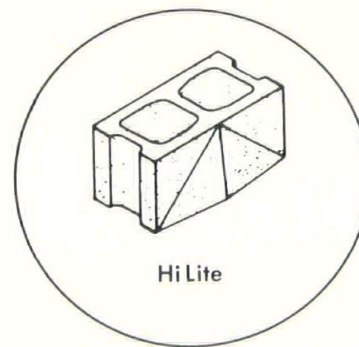
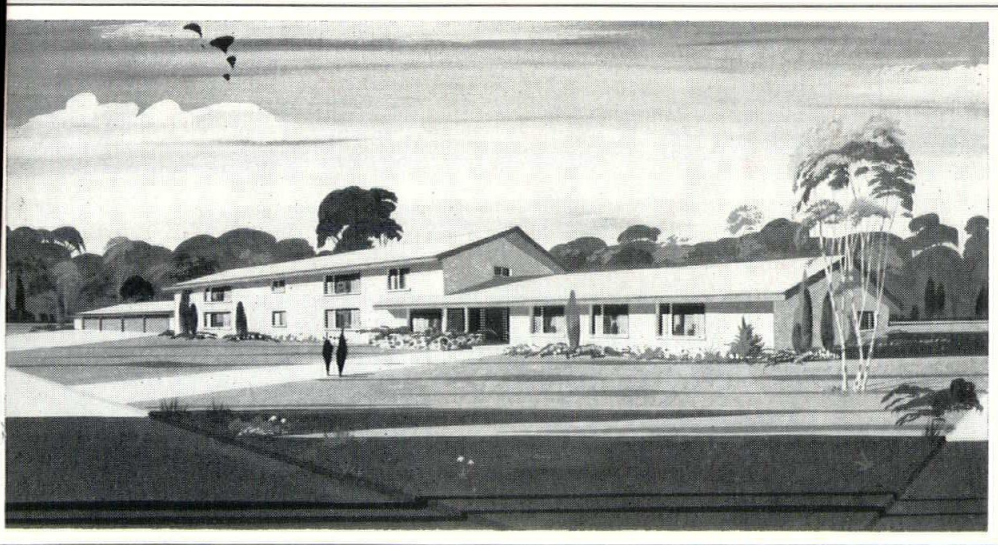
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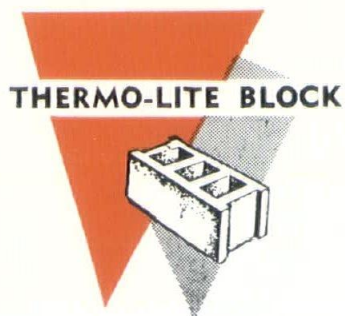


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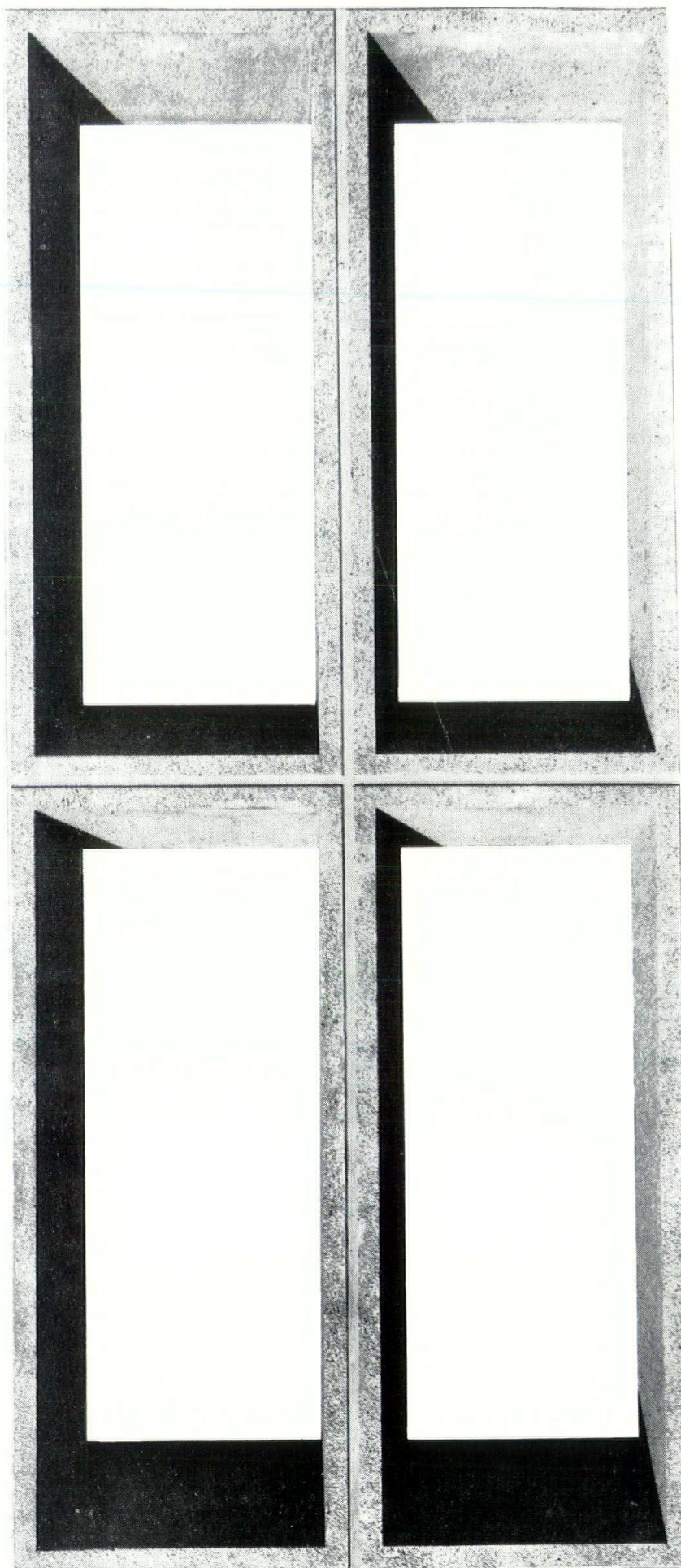
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## Notes of the Month

(Continued from page 5)

This part of the code is currently being studied by the building code review board. But at the time of this writing the only acceptable fire escape platform is one that conforms to the requirements of Ind 51.20.

**Q.** How big should a Type "A" fire escape platform be?

**A.** The minimum size of a Type "A" platform is 3' 2" wide x 3' 0" long if placed at the exit door. If it is not located at the exit door, it may be 2' 4" wide x 3' 0" long. The 3' 2" width is calculated with a 2' 6" door and 4" of width on each side of the jamb.

Whenever you have questions on apartment building exits, please write to the Industrial Safety and Buildings Division of the Department of Industry, Labor & Human Relations, P.O. Box 2209, Madison, Wisconsin 53701.

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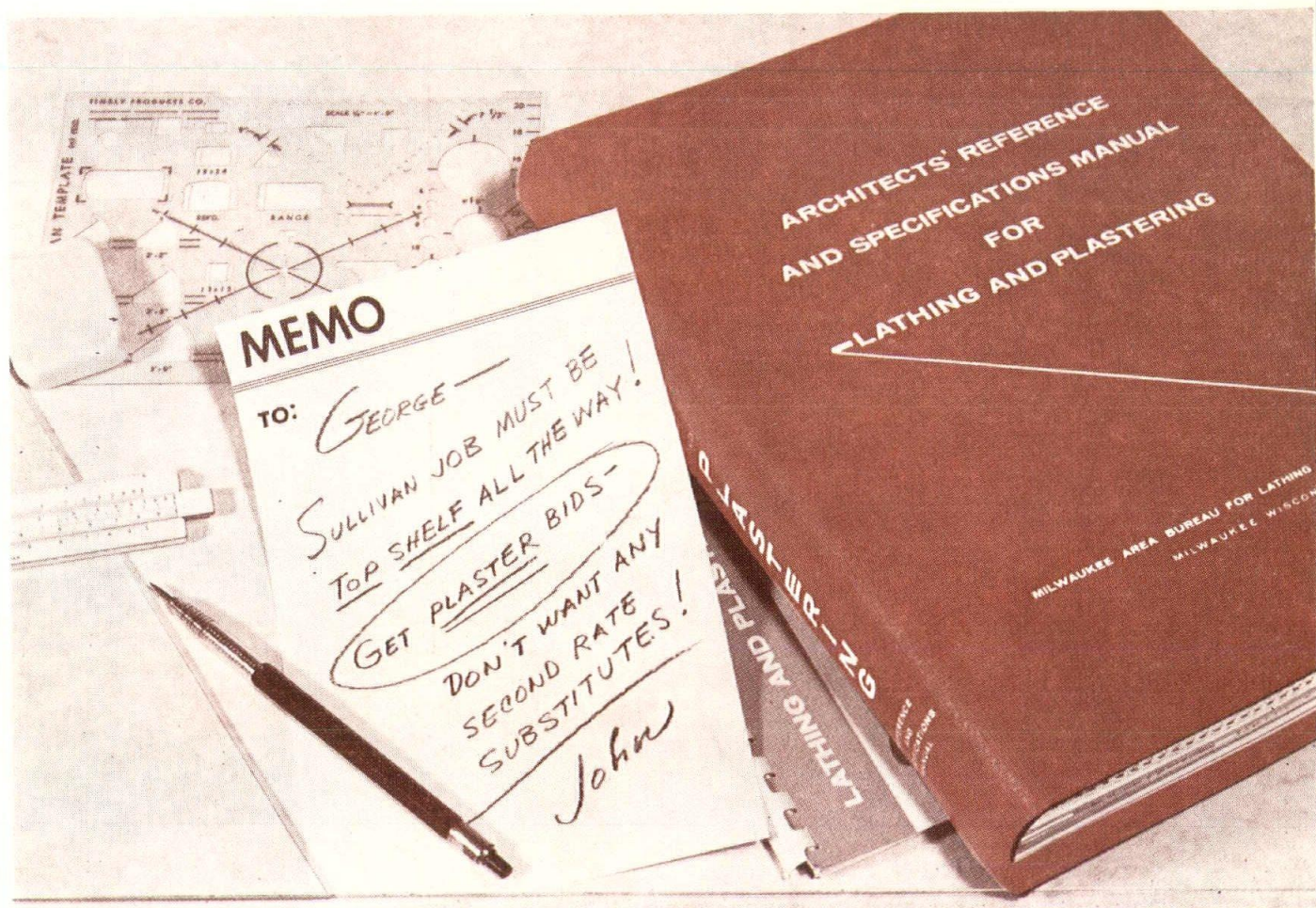


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